

Aiming for optimal learning.

Or things don't always turn out as planned.

Gisela Eckert, Charlotte Alm
Fanny Estling, Ebba Jakobsson, Emelie Schröder, Mårten Tyrberg

Linköping University, Sweden

Abstract

In a Clinical Psychology Program, a project aimed at improving education in communication and testing skills was conducted. In order to help the students develop these skills a portfolio was introduced. Although based on established pedagogical principles, the initial results were discouraging. No student reported using the portfolio. This at first somewhat puzzling result is discussed in light of theories of motivation and learning. It is argued that, in educational discourses, “optimal” learning is often contrasted with learning of lesser quality. But what if it would be contrasted with no learning at all? The suggestion put forth is that it may be advantageous to also use the concepts of extrinsic motivation and situational interest when improving higher education.

Keywords: intrinsic motivation, extrinsic motivation, learning, portfolio, assessment

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This is an account of a project that was intended to improve the quality of education in a clinical psychology program. We will reflect here on how a project that had good intentions, was in line with teachers' ambitions and students' wishes and based on agreed on pedagogical principles nevertheless failed to turn out as expected. In doing this we will also discuss the results in light of psychological theories of motivation and pedagogical theories of higher education.

The project took place in the Clinical Psychology Program at Linköping University in Sweden. As in other clinical psychology programs, much of the educational content of the program in Linköping concerns theoretical knowledge of the subject of psychology. In addition to this, the psychology students are expected to learn professional skills such as communication skills, counseling skills, testing skills and so forth, which are required for a clinical career. In the Clinical Psychology Program at Linköping, training in and development of this set of professional skills are integrated into the regular psychology coursework throughout the entire program. That is, students participate in various sessions aimed at developing their professional skills throughout the five-year program.

The integration of professional skills into the coursework has proven to be advantageous for students. Students entering a clinical psychology program are usually excited about their career choice and eager to try some basic skills that will be an important part of their future work. Thus, such a model gives first-year students the opportunity to participate in "hands-

on” exercises. Because the training is continuous, students are better prepared to meet their first “official” client during Semester 6, as the program dictates. Repetitive reinforcement of the tasks, combined with continuous training in the set of professional skills also reduces the risk that any specific skill taught early in the curriculum might be forgotten.

However, there are also problems associated with organizing a program in this fashion. As in other educational contexts our students also have problems integrating their knowledge. Although we start from the overall idea that the various training sessions, which are distributed throughout the program, are connected, there is a tendency for students to lose sight of these connections entirely. From their perspective, it may seem as though their coursework has suddenly been disrupted by two hours of testing exercises, resulting in a sense that the session took place out of context. Additionally, it becomes difficult for students to connect this particular exercise with those they did in previous semesters or those they will do in subsequent semesters.

A structured investigation of students’ views on the pros and cons of the current method of organizing training in professional communication and testing skills, respectively, and their views on how the organization of training could be improved revealed some of these problems. Two versions of the Course Experience Questionnaire (CEQ; Ramsden, 1991) were constructed, where one version concerned communication training and the other version concerned testing training. The questionnaires were distributed during spring semester 2005 to students nearing the end of the program, that is, students who had experienced most of their communication and testing training. Results from the analysis indicated that the participants to some extent thought that the professional skills training had developed their generic skills and that the appropriate assessments had been used. But they were less satisfied with the

teaching standards and the amount of workload, but most importantly, the goals and standards were perceived as unclear.

Thus, although the intent with the current method of organizing training in professional communication and testing skills was to give students an opportunity to deepen their knowledge and understanding at each new training session, the approach is failing to paint the whole picture, and in turn, students have problems developing a coherent feeling of having mastered a particular set of skills.

These findings reinforced our idea that improvement was needed to enhance the structure of communication and testing training and that the students needed a method that could help them form a whole from the various training sessions. In attempting this, we wanted a method of improvement in line with the overall pedagogical principles upon which the current Clinical Psychology Program is based. The whole program in Linköping was (and still is) organized according to the principles of problem-based learning (PBL). This implies, according to Silén (2001), certain assumptions about learning. One is that individuals learn in interaction with others. Rooted in a Vygotskyan understanding of cognitive development, authors such as Säljö (2000) point to the importance of seeing learning as something that takes place in a particular context and in interaction with others. Another assumption is that learning is driven by motivation. Based on a humanistic view of human beings' aim for self-actualization, the best motivation for learning is believed to be the one that comes from within individuals themselves. This view is often contrasted with a more behavioristic view on learning based on external rewards and/or punishments. That is, the focus of PBL is on intrinsic rather than extrinsic motivation. Furthermore, PBL assumes active learners who reflect on course content and who reflect meta-cognitively on their own learning process.

Finally, there is the belief that an opportunity to take responsibility for and influence one's own learning creates a learning environment that enhances learning (Silén, 2001).

In our ambition to find a method to help students acquire a coherent sense of mastering communication and testing skills – a method in line with the overall principles of the program – we were inspired by the pedagogical idea of using a portfolio. During recent years in Sweden and elsewhere, the use of portfolios has become widespread in educational contexts from pre-school to adult education. According to Ellmin and Ellmin (2003), portfolios can be used in a variety of ways. For instance, they can serve as a tool to monitor and enhance learning processes, for assessment or as a CV that documents one's skills and merits. In Ellmin's and Ellmin's (2003) account of the portfolio method, they point to the influence of learning theorists such as Piaget and Vygotsky and their view on active learners who construct their own knowledge in interaction with other people. The portfolio method could also be said to be based on psychological theories of self-regulation, i.e. controlling one's own thinking and behavior in order to achieve desired goals (Schunk & Zimmerman, 1998; Zimmerman, 2000; Zimmerman & Schunk, 2004) and theories of "self-efficacy", i.e. a learned belief in one's own ability to handle things and situations (Bandura, 1997). One of the key thoughts underlying the portfolio method is that learners get an opportunity to take control over their own learning process, thereby becoming more actively involved in their own learning. This implies that individual motivation is less dependent on extrinsic rewards. Another key feature involves documenting learning progress and making visible the steps of mastering learning outcomes.

We felt the portfolio technique would be well suited to the pedagogical principles upon which the program is based. At the same time, we hoped it would be a helpful tool for students to

monitor their own learning process and to form a whole of the separate learning sessions. We also found two studies that described successful attempts to introduce portfolios in educational programs similar to ours. Gordon (2003) found that first-year medical students who were included in a project where they had the opportunity to work with a portfolio reported positive experiences. Ninety percent claimed that time spent on the portfolio was time well spent. In the other study we found, psychology students were to learn to use Wechsler's intelligence scales. The students were divided into two groups, one of which was asked to use a portfolio during their training. It was shown that the group who used the portfolio made significantly fewer errors (Egan, McCabe, Semenchuck & Butler, 2003). These findings encouraged us to introduce the portfolio method in our program as well.

Method and results

A portfolio methodology, inspired by Gordon (2003), Jeppson (2004) and Finlay, Maughan and Webster (1998), was thus developed. Our material consisted of written instructions to the students as well as an oral introduction session. The written instructions included one section with background information concerning what a portfolio is and some information about self-regulation and self-efficacy. This was followed by sections describing how to construct a portfolio. In accordance with Finlay et al. (1998), the participants were given suggestions as to what the portfolio could include and its format, however, they were also informed that these were only suggestions and that they were free to include whatever they liked. In line with Jeppson (2004), it was suggested that the portfolio include personal goals and expectations, references to literature and personal material such as pictures, reflections on one's own work and, for instance, the working process, group processes, as well as reflections

on personal development in relation to goals and expectations. It was also suggested that the portfolio only include artifacts and reflections related to the students' own personal and professional development (Gordon, 2003). The instructions encouraged students to not collect just anything, but to reflect upon what they put into the portfolio so that they would also reflect on their own learning process. The oral introduction session consisted of a presentation of the portfolio method, some theoretical grounds for use of a portfolio and a presentation of examples of other learning situations/education programs in which portfolio methods have successfully been used.

As described above, portfolios could be used in different manners (i.e., monitoring, assessment and CV). We decided not to use the portfolio as a mean of assessment, but as an aid for students to monitor their own learning. This decision was based on several factors. First, the problems we had with the communication and testing sessions were not related to assessment (see the result of the CEQ above). The sessions were already continuously examined through active participation in role-play, testing exercises, paper writing, etc., in which students also received continuous feedback. The problem instead was in bringing the sessions together and gaining a sense of progression and mastery of a skill. Second, we wished to work in line with the ideas of intrinsic motivation and internal locus of control that are part of both PBL and the portfolio method and that are believed to be important factors for the creation of good learning environments. Therefore, we did not wish to make the portfolio part of the assessment and, thereby, compulsory.

The portfolio was pilot tested on two different occasions, Part 1 and Part 2 respectively, in a group of undergraduate psychology students enrolled in semester 2 ($n = 27$).

Part 1

On the first occasion, we introduced the portfolio when students were taking a course involving testing training in late August 2005. The students were given the oral introduction and the written instructions. When the course ended in early October of the same year, we organized an evaluation session to discover their opinions about the value of the portfolio. However, because only a few students showed up at this session, we distributed a questionnaire.

The questionnaire included two demographic questions (i.e., sex and birth year). A subsequent question concerned the amount of time spent on the portfolio, where answers were provided by checking one of six pre-determined boxes (i.e., "0 hours", "1-5 hours", "6-10 hours", "11-15 hours", "16-20 hours", and "more than 20 hours"). Students who checked the box "0 hours" were also asked, in an open-ended format, to state the main reasons or reason for this. Further, one question concerned whether or not students had read the written instructions for making the portfolio. Answers to this question were provided by checking "yes" or "no". The questionnaire also included 19 items based on the Course Experience Questionnaire (CEQ; Ramsden, 1991). Students were to rate the extent to which each of these statements applied to them by circling one number from 1 (*Disagree entirely*) to 5 (*Agree completely*). Thirteen of the items pertained to learning outcomes related to use of the portfolio, whereas the remaining 6 items pertained to the portfolio instructions. Finally, the questionnaire included four open-ended questions: "What was good about the instructions?", "Suggestions for improvement of the instructions", "What was good about the verbal introduction to the portfolio?", and "Suggestions for improvement of the verbal introduction".

A total of 10 students returned the questionnaire. Answers to the open-ended questions showed that only a few students had created their own portfolio. The reasons given for not working with the portfolio were mainly lack of time and concrete examples of how to organize a portfolio. The mean ratings of the various items pertaining to learning outcome and portfolio instructions largely coincided with the answers to the open-ended questions. Generally, the instructions were perceived as quite easy to follow, and as giving a somewhat clear picture of how a portfolio should be organized as well as of the expected quality of work to be included in the portfolio. However, the students did not generally consider the instructions or the verbal introduction to be particularly motivating.

Part 2

In November 2005, the same group of students had a course that included communication training. We introduced a slightly modified version of the portfolio, this time with a more developed oral presentation as well as a workshop. The workshop was designed to allow students to sit in small groups together with a tutor, go through the instructions and start thinking about how a portfolio could be constructed. In January 2006, we organized another evaluation session. Because none of the students showed up at this session, and in order to compare results from the evaluation of the portfolio on testing training with results from the evaluation of the portfolio on communication training, we distributed a similar questionnaire. The differences between this and the former questionnaire involved some changes in wording, i.e., so that the items would address the type of training in focus in the respective questionnaires. Because the responses were anonymous, however, we could not compare the results in the same analysis (i.e., by means of repeated measures). Thus, the comparison should be treated with some caution.

A total of 6 students returned the questionnaire. As with the testing training, results from the open-ended questions showed that only a few students had created their own portfolio. The reasons given for not working with the portfolio were mainly lack of time and motivation. An inspection of the mean ratings of the various items pertaining to learning outcome and instructions for the portfolio largely coincided with the answers to the open-ended questions. The main difference in mean responses to the items pertaining to the portfolio instructions compared with testing training was that the verbal introduction was viewed as quite motivating. We had introduced the portfolio at the communication training using a different approach (a more in-depth presentation of the theoretical and empirical background of the portfolio idea as well as a workshop in which students had the opportunity to work with a portfolio). Two of the students had commented that they appreciated this opportunity, whereas none of the students expressed negative views on this new approach. One student suggested that we should more clearly state the reasons why a portfolio is a good way of organizing knowledge.

Conclusion

The conclusion we may draw thus far is that creation of a portfolio was one way to address a problem that had been recognized both by teachers and by students. There was consensus as to the need for an improvement that could help students form a whole of the separate training sessions. The method was well in line with the pedagogical principles upon which the entire program was based, as the basic assumptions of PBL and the portfolio method are in accordance. Creation of the material and instructions for the portfolio worked out reasonably well. We had to adjust our way of introducing the portfolio, but after this adjustment, the

material seemed to function adequately. Despite this, the attempt to launch this method failed, that is, no student reported using the portfolio. The discouraging result was that no one had put any effort into trying the method.

How can this be understood? Did we do something very wrong? Are our students different from other students? And how should we deal with this situation? Naturally, one solution would be to abandon that whole idea and conclude that it did not work. Another would be to evaluate the experience and find a way to increase the probability of students using the portfolio. An 'easy fix' that would guarantee use of the portfolio would be to make the portfolio part of assessment. By making the portfolio compulsory, we could eliminate the problem of students ignoring it, as it would then be a required part of their degree work. This strict, but certainly doable, method could possibly be justified by arguing that the portfolio method is so beneficial for students that it is reasonable to make it compulsory. However, there is a problem associated with this solution. Making the portfolio compulsory violates one of the pedagogical grounds on which the portfolio method and PBL are based, that is, that individuals learn best if they are driven by intrinsic instead of extrinsic motivation.

However, perhaps we should not jump to conclusions yet, but stop and reflect more generally on the basic assumption that learning is *always and only* benefited by intrinsic motivation and personal interest. If we just look at the theoretical assumptions about learning and motivation that form one of the bases of PBL and the portfolio method, the result of our attempt to introduce the portfolio method must be viewed as somewhat puzzling and contradictory. By creating a learning environment in which the learner is given opportunities to make many choices, be active and monitor her/his own learning process, learning should have been enhanced and we should not have obtained our discouraging results. But if we turn to other

contemporary pedagogical discourses within higher education, we find the understanding that assessment largely determines how and what students learn (see, e.g., Entwistle & Ramsden, 1983; Bowden & Marton, 1998). Thus, according to this view, students adapt their way of studying to what is required of them. This means that by controlling the type of assessment, it is possible to create learning situations that, for example, favor ‘deep learning’, support/require development of analytical and/or critical thinking or encourage documentation of and reflection on course content and/or practical skills. Here we see a more complicated picture emerging, as assessment is a form of external control leading to extrinsic motivation, and according to the first assumptions, extrinsic motivation should discourage high-quality learning.

In addition, if we consider what is known about the psychology of human motivation and behavior, the relationship between what one wishes to do and what one actually does is shown to be very complex (see, e.g., Bernstein et al, 2003 for a brief overview). Early models of human motivation and its relationship to behavior usually assumed a clear connection between what a learner desires, i.e. her/his goal, a possible way to reach that goal and the strength to keep on working toward that goal. The problem is that humans usually desire more than one thing at a time, and these things are often contradictory. For instance, an individual may simultaneously wish to succeed with her/his studies, spend time with friends and family, keep the house clean, and just relax on the couch day-dreaming. In this situation, there are competing goals and there is no guarantee that educational aspirations will “win”. Suddenly, looked at in this light, the results of our attempt to introduce the portfolio are not so unique and not as surprising.

The complex nature of human motivation and its relationship to academic achievement have been explored by several researchers. For example, Ryan and Deci (2000) scrutinized the dichotomy between intrinsic and extrinsic motivation. They state that several studies have shown that extrinsic rewards undermine intrinsic motivation, but as they also point out, these results only pertain to activities that hold intrinsic interest for the individual in the first place. Many activities in higher education do not have that characteristic. Because not all parts of an education program are inherently interesting to all students, it is important when organizing education to develop good forms of extrinsic motivation. Ryan and Deci (2000) suggest that extrinsic motivation can be very different in nature depending on the amount of individual autonomy. They divide extrinsic motivation into what they call external regulation, introjection, identification and integration. For example, a student who studies for an exam in order to avoid parental disapproval and a student who studies based on an internalized belief that studying is valuable for her/his chosen future career are both driven by extrinsic motivation, but according to Ryan and Deci (2000), the latter form of motivation entails a higher level of autonomy. Thus, the challenge for educators is to foster internalization and integration of the importance of regulating one's behavior and pursuing activities even though they are not inherently interesting and/or enjoyable so that students can achieve their self-endorsed extrinsic goals.

Hidi and Harachiewicz (2000) also addressed the question of motivation in academic contexts. Just as Ryan and Deci (2000) focused on the dichotomy between intrinsic and extrinsic motivation, Hidi and Harachiewicz (2000) explored the concepts of individual interest and situational interest. According to them, individual interest is a relatively stable personal orientation toward a specific topic or activity. Situational interest, on the other hand, is an interest that is sparked by stimuli in the environment. They point to the fact that

individual interest has been assumed to be closely linked to intrinsic motivation and therefore also believed to be an important factor for high-quality learning. They argue, however, that in an academic setting it is also important to work with situational interest. A teacher who is responsible for a large group of students cannot expect all of them to have an individual interest that is sufficient to motivate learning. Situational interest, which can be evoked using external factors, is, thus, an important tool for educators to use in facilitating learning, and possibly, in the long run, also in stimulating individual interest.

Based on our own experience, and the writings of authors such as Ryan, Deci, Hidi and Harachiewicz, we suggest that the pedagogical discourse has focused on the difference between learning driven by intrinsic motivation and learning driven by extrinsic motivation. The latter form of learning has then been shown to be of lesser quality than the former. From this perspective, then, the desired approach must be for educators to promote learning driven by intrinsic motivation. However, if we take another perspective and compare, perhaps not optimal, but “good-enough” learning driven by extrinsic motivation to no learning at all, what is then the desired approach? If a student puts no time and effort into studying, we as teachers can choose to act in various ways. We can hold on to the humanistic model of human motivation and continue to blame students for not wanting enough, or we can base our teaching on more complex models of motivation. In doing so, we can help students by organizing higher education such that it encourages and supports learning even when individual interest and intrinsic motivation for studying are not strong enough to compete with other simultaneous desires.

The results from our project thus suggest that intrinsic motivation is not sufficient to enable intended learning in higher educational contexts. Rather, it seems necessary to create a

learning environment also including extrinsic motivation, such as relevant assessments. In other words, we suggest that the dichotomy between intrinsic and extrinsic motivation be dissolved, and replaced by the assumption that both may be necessary in various combinations and depending on the context.

A discussion of the benefits of extrinsic factors is usually met with an expressed fear of rewarding trivial knowledge. An association is often made between knowledge transmission, extrinsic motivation and multiple choice assessments, on the one hand, and knowledge construction, intrinsic motivation and essay assessments, on the other. However, our suggestion enables a connection between knowledge construction, extrinsic motivation and essays. It is also important to note that inclusion of situational interest and extrinsic motivation as important factors for learning does not imply that other factors, shown to be advantageous for learning, should be ignored. Examples of such factors are feedback, clear goals, appropriate workloads, appropriate assessment and emphasis on independence (Ramsden, 1991).

Although our study has shown the need for a combination of intrinsic and extrinsic motivation and that other studies have shown that situational interest correlates with learning and that interest even under extrinsic conditions fosters learning, it could still be argued that this does not constitute optimal learning. However, if the alternative is no intended learning at all, we prefer good-enough learning.

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Note

Send correspondence to Gisela Eckert, Department of Behavioural Sciences and Learning,
Linköping University, 581 83 Linköping, Sweden, e-mail: gisela.eckert@liu.se

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